STANLEY®

BR45

HYDRAULIC BREAKER

SAFETY, OPERATION AND MAINTENANCE
USER MANUAL

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New Britain, CT 06053
U.S.A.
62388 12/2010 Ver 5

DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY
ÜBEREINSTIMMUNGS-ERKLARUNG
DECLARATION DE CONFORMITE CEE
DECLARACION DE CONFORMIDAD
DICHIARAZIONE DI CONFORMITA

CE

STANLEY
Hydraulic Tools

I, the undersigned:
Ich, der Unterzeichnende:
Je soussigné:
El abajo firmante:
Io sottoscritto:

Weisbeck, Andy

Surname and First names/Familiennname und Vornamen/Nom et prénom/Nombre y apellido/Cognome e nome

hereby declare that the equipment specified hereunder:
bestätige hiermit, daß erklaren Produkt genannten Werk oder Gerät:
déclare que l'équipement visé ci-dessous:
Por la presente declaro que el equipo se especifica a continuación:
Dichiaro che le apparecchiature specificate di seguito:

1. Category:
   Kategorie:
   Catégorie:
   Categoria:
   Categoria:
   Hydraulic Hand Held Concrete Breaker
2. Make/Marke/Marque/Marca/Marca **Stanley**
3. Type/Typ/Type/Tipo/Tipo: **BR4514801, BR4516801, BR4516807**
4. Serial number of equipment:
   Seriennummer des Geräts:
   Numéro de série de l'équipement:
   Numero de serie del equipo:
   Matricola dell´attrezzatura:
   All
5. Mass/Masse/Masse/Masa/Massa 23 kg

Has been manufactured in conformity with
Wurde hergestellt in Übereinstimmung mit
Est fabriqué conformément
Ha sido fabricado de acuerdo con
E' stata costruita in conformitá con

Directive/Standards Richtlinie/Standards Directives/Normes Directriz/Los Normas Direttiva/Norme	No. Nr Numéro No n.	Approved body Prüfung durch Organisme agréé Aprobado Collaudato
EN Noise Directive Machinery Directive	792-4:2004+A1:2008 2000/14/EC:2005 2006/42/EC:2006	Self SMP Svensk Maskinprovning AB (Notified body ID 0404, Annex VI) Fyrisborgsgatan 3, 754 50 Uppsala, Sweden Certificate #20/213/004 Self

6. Special Provisions: **None**
   Spezielle Bestimmungen:
   Dispositions particulières:
   Provisiones especiales:
   Disposizioni speciali:

7. Measurements: **Measured Sound Power Level 106 LwA**
   Messungen **Guaranteed Sound Power Level 107 LwA**
   Mesures Measured in accordance to Directive 2000/14/EC,
   Mediciones Annex III, Part B, No 10, 15 kg<m< 30 kg
   Misurazioni

8. Representative in the Union: **Patrick Vervier**, **Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.**
   Vertreter in der Union/Représentant dans l'union/Representante en la Union/Rappresentante presso l'Unione

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 12-19-10

Signature/Unterschrift/Signature/Firma/Firma Andy Weisbeck

Position/Position/Fonction/Cargo/Posizione Engineering Manager

P/N- 52571 Rev. 6 12/19/10

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TABLE OF CONTENTS

DECLARATION OF CONFORMITY 2
SAFETY SYMBOLS 4
SAFETY PRECAUTIONS 5
TOOL STICKERS & TAGS 7
HOSE TYPES 8
HOSE RECOMMENDATIONS 9
FIGURE 1. TYPICAL HOSE CONNECTIONS 9
HTMA REQUIREMENTS 10
OPERATION 11
TOOL PROTECTION & CARE 12
TROUBLESHOOTING 13
CHARGING THE ACCUMULATOR 14
FIGURE 2. CHARGING THE ACCUMULATOR 15
SPECIFICATIONS 16
ACCESSORIES 17
BR45 T-HANDLE PARTS ILLUSTRATION 18
BR45 T-HANDLE PARTS LIST 19
BR45 ANTI-VIBRATION HANDLE PARTS ILLUSTRATION 20
BR45 ANTI-VIBRATION HANDLE PARTS LIST 21

IMPORTANT

To fill out a Product Warranty Recording form, and for information on your warranty, visit Stanleyhydraulic.com and select the Warranty tab.
(**NOTE:** The warranty recording form must be submitted to validate the warranty).

SERVICING THE STANLEY HYDRAULIC BREAKER. This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

⚠ WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.

SAFETY SYMBOLS

Safety symbols and signal words, as shown below, are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER — This safety alert and signal word indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING — This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION — This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION — This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTICE — This signal word indicates a situation which, if not avoided, will result in damage to the equipment.

IMPORTANT — This signal word indicates a situation which, if not avoided, may result in damage to the equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided in this manual.

The BR45 Hydraulic Breaker will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, gloves, ear, head, and breathing protection, and safety shoes at all times when operating the tool.
- Do not inspect, carry or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use only lint-free cloths. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. Operation at higher oil temperatures can cause operator discomfort and may damage the tool. Never come in contact with the tool bit, the bit can get hot.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- Do not weld, cut with an acetylene torch, or hardface the tool bit.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Check fastener tightness often and before each use daily.
- Never operate the tool if you cannot be sure that underground utilities are not present.
- Do not wear loose fitting clothing when operating the tool.

SAFETY PRECAUTIONS

- Warning: Hydraulic fluid under pressure could cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.
- Keep all body parts away from the working tool.
- When handling material or the tool bit, wear your (PPE) Personal Protection Equipment.
- Be observant of the hydraulic hoses lying about the work area, they can be a tripping hazard.
- Always de-energize the hydraulic system when changing a tool bit.
- Take caution when changing a tool bit, tool bits can get very hot.
- Never use the tool in an explosive atmosphere, sparks from the breaking process could ignite explosive gas.
- Use proper lifting techniques when handling the tool, get help from a co-worker and do not over-reach.
- Use proper protection from falling or flying debris, keep bystanders at a safe distance.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.

⚠ WARNING

Exposure to crystalline Silica (sometimes called “silica dust”) as a result of breaking, drilling, or hammering of rock, concrete, asphalt or other materials may cause Silicosis (a serious lung disease), silicosis-related illnesses, cancer, or death.

Respiratory protection is highly recommended when working with materials containing Silica Dust.

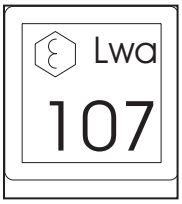
Always wear a respirator approved for protection against crystalline silica.

TOOL STICKERS & TAGS

Please refer to the Parts Illustration for location of stickers.

07487 Name Tag

28409 Composite Sticker (CE Only)

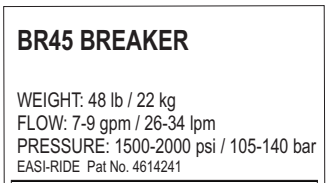


58601 Sound Level Sticker (CE Only)

11207 Circuit Type C Sticker (CE Only)

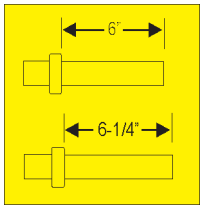
28322 CE Sticker (CE Only)

71072 CE Tool Plate



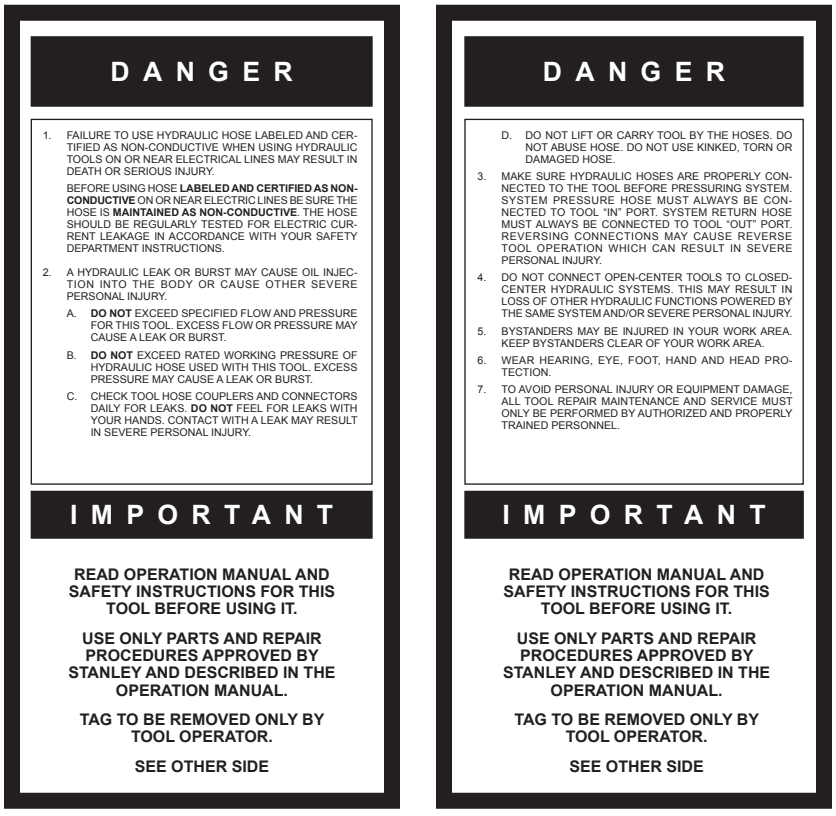
28379 BR45 Model Name Tag (CE Only)

05152 Stanley Sticker(CE only)



11208 Hex Shank Length Sticker

The safety tag (P/N 15875) at right is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.


DANGER
1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRIC LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
A. DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
B. DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.
IMPORTANT
READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.
USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.
TAG TO BE REMOVED ONLY BY TOOL OPERATOR.
SEE OTHER SIDE
DANGER
D. DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
3. MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
4. DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
5. BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
6. WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
7. TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.
IMPORTANT
READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.
USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.
TAG TO BE REMOVED ONLY BY TOOL OPERATOR.
SEE OTHER SIDE

SAFETY TAG P/N 15875 (Shown smaller then actual size)

HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with Stanley Hydraulic Tools. They are:

Certified non-conductive — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled **certified non-conductive** is the only hose authorized for use near electrical conductors.*

Wire-braided (conductive) — constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. *This hose is **conductive** and must never be used near electrical conductors.*

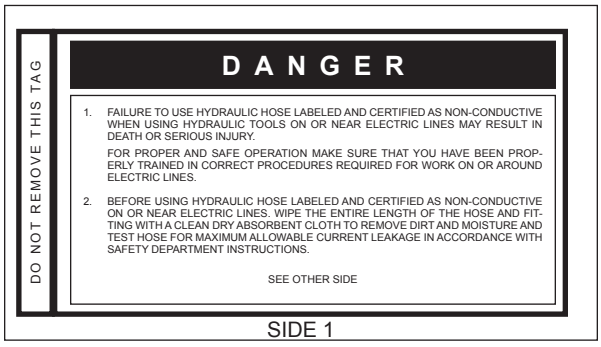
Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

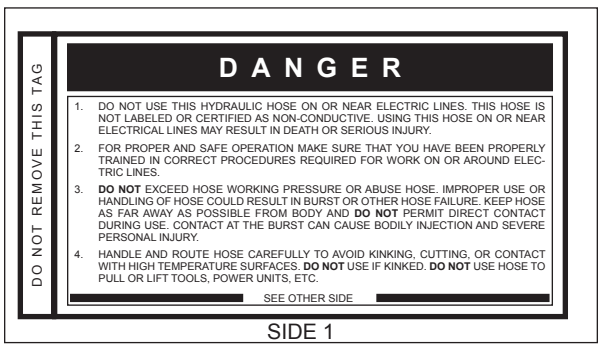
THE TAG SHOWN BELOW IS ATTACHED TO "CERTIFIED NON-CONDUCTIVE" HOSE

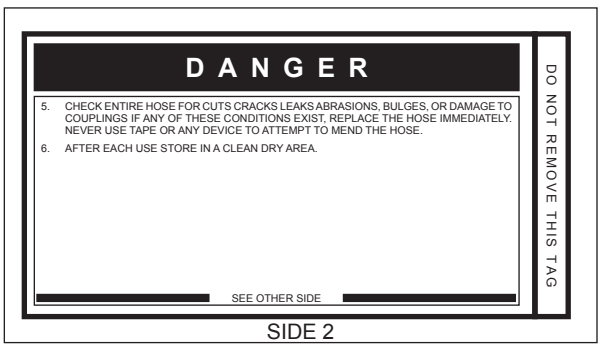

DO NOT REMOVE THIS TAG
D A N G E R
1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRIC LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
FOR PROPER AND SAFE OPERATION MAKE SURE THAT YOU HAVE BEEN PROPERLY TRAINED IN CORRECT PROCEDURES REQUIRED FOR WORK ON OR AROUND ELECTRIC LINES.
2. BEFORE USING HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRIC LINES. WIPE THE ENTIRE LENGTH OF THE HOSE AND FITTING WITH A CLEAN DRY ABSORBENT CLOTH TO REMOVE DIRT AND MOISTURE AND TEST HOSE FOR MAXIMUM ALLOWABLE CURRENT LEAKAGE IN ACCORDANCE WITH SAFETY DEPARTMENT INSTRUCTIONS.
SEE OTHER SIDE
SIDE 1

D A N G E R
3. DO NOT EXCEED HOSE WORKING PRESSURE OR ABUSE HOSE. IMPROPER USE OR HANDLING OF HOSE COULD RESULT IN BURST OR OTHER HOSE FAILURE. KEEP HOSE AS FAR AWAY AS POSSIBLE FROM BODY AND DO NOT PERMIT DIRECT CONTACT DURING USE. CONTACT AT THE BURST CAN CAUSE BODILY INJECTION AND SEVERE PERSONAL INJURY.
4. HANDLE AND ROUTE HOSE CAREFULLY TO AVOID KINKING, ABRASION, CUTTING, OR CONTACT WITH HIGH TEMPERATURE SURFACES. DO NOT USE IF KINKED. DO NOT USE HOSE TO PULL OR LIFT TOOLS, POWER UNITS, ETC.
5. CHECK ENTIRE HOSE FOR CUTS CRACKS LEAKS ABRASIONS, BULGES, OR DAMAGE TO COUPLINGS IF ANY OF THESE CONDITIONS EXIST, REPLACE THE HOSE IMMEDIATELY. NEVER USE TAPE OR ANY DEVICE TO ATTEMPT TO MEND THE HOSE.
6. AFTER EACH USE STORE IN A CLEAN DRY AREA.
SEE OTHER SIDE
DO NOT REMOVE THIS TAG
SIDE 2

(Shown smaller than actual size)

THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.


DO NOT REMOVE THIS TAG
D A N G E R
1. DO NOT USE THIS HYDRAULIC HOSE ON OR NEAR ELECTRIC LINES. THIS HOSE IS NOT LABELED OR CERTIFIED AS NON-CONDUCTIVE. USING THIS HOSE ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
2. FOR PROPER AND SAFE OPERATION MAKE SURE THAT YOU HAVE BEEN PROPERLY TRAINED IN CORRECT PROCEDURES REQUIRED FOR WORK ON OR AROUND ELECTRIC LINES.
3. DO NOT EXCEED HOSE WORKING PRESSURE OR ABUSE HOSE. IMPROPER USE OR HANDLING OF HOSE COULD RESULT IN BURST OR OTHER HOSE FAILURE. KEEP HOSE AS FAR AWAY AS POSSIBLE FROM BODY AND DO NOT PERMIT DIRECT CONTACT DURING USE. CONTACT AT THE BURST CAN CAUSE BODILY INJECTION AND SEVERE PERSONAL INJURY.
4. HANDLE AND ROUTE HOSE CAREFULLY TO AVOID KINKING, CUTTING, OR CONTACT WITH HIGH TEMPERATURE SURFACES. DO NOT USE IF KINKED. DO NOT USE HOSE TO PULL OR LIFT TOOLS, POWER UNITS, ETC.
SEE OTHER SIDE
SIDE 1


D A N G E R
5. CHECK ENTIRE HOSE FOR CUTS CRACKS LEAKS ABRASIONS, BULGES, OR DAMAGE TO COUPLINGS IF ANY OF THESE CONDITIONS EXIST, REPLACE THE HOSE IMMEDIATELY. NEVER USE TAPE OR ANY DEVICE TO ATTEMPT TO MEND THE HOSE.
6. AFTER EACH USE STORE IN A CLEAN DRY AREA.
SEE OTHER SIDE
DO NOT REMOVE THIS TAG
SIDE 2

(Shown smaller than actual size)

Tool to Hydraulic Circuit Hose Recommendations

The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/ liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Stanley Hydraulic Tools tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

All hydraulic hose must meet or exceed specifications as set forth by SAE J517.

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
10-13	38-49	51-100	15-30	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	100-200	30-60	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
13-16	49-60	up to 25	up to 8	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175

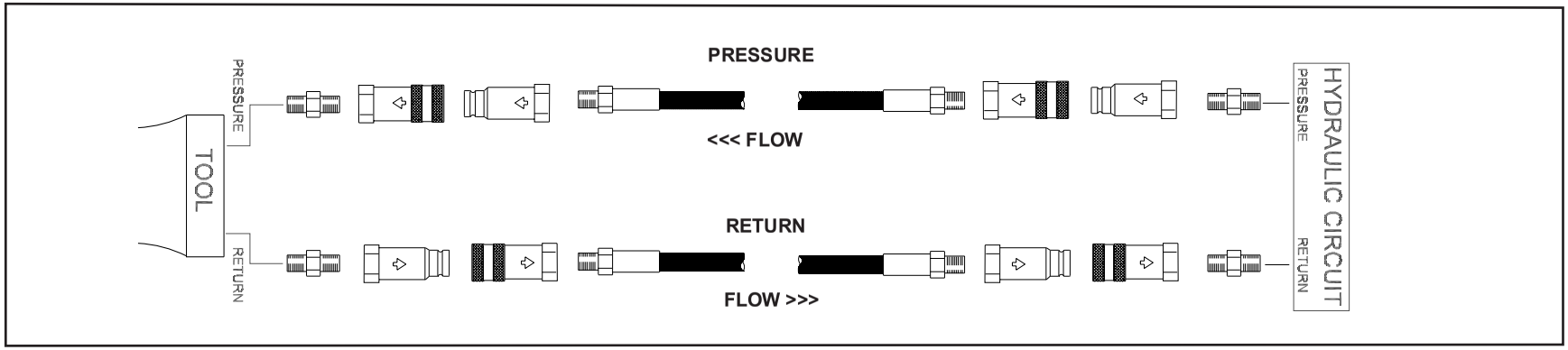


Figure 1. Typical Hose Connections

HTMA REQUIREMENTS

HYDRAULIC SYSTEM REQUIREMENTS	TOOL CATEGORY TYPE I	 TYPE II	TYPE III	TYPE RR
FLOW RATE	4–6 gpm (15–23 lpm)	7–9 gpm (26–34 lpm)	11–13 gpm (42–49 lpm)	9–10.5 gpm (34–40 lpm)
TOOL OPERATING PRESSURE (At the power supply outlet)	2000 psi (145–155 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (At the power supply outlet)	2100–2250 psi (145–155 bar)	2100–2250 psi (145–155 bar)	2100–2250 psi (145–155 bar)	2200–2300 psi (145–155 bar)
MAXIMUM BACK PRESSURE (At tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (At min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE Sufficient heat rejection capacity to limit max. fluid temperature to: (At max. expected ambient temperature)	140 °F (60 °C)	140 °F (60 °C)	140 °F (60 °C)	140 °F (60 °C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40 °F (22 °C)	5 hp (3.73 kW) 40 °F (22 °C)	7 hp (4.47 kW) 40 °F (22 °C)	6 hp (5.22 kW) 40 °F (22 °C)
NOTE: Do not operate the tool at oil temperatures above 140 °F (60 °C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER Min. full-flow filtration Sized for flow of at least: (For cold temp. start-up and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
HYDRAULIC FLUID	100–400 ssu*	100–400 ssu*	100–400 ssu*	100–400 ssu*
Petroleum based (Premium grade, anti-wear, non-conductive) VISCOSITY (At min. and max. operating temps)	(20–82 centistokes)			
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

*SSU = Saybolt Seconds Universal

The recommended hose size is .500 inch/12 mm I.D. up to 50 ft/15 m long and .625 inch/16 mm I.D. minimum up to 100 ft/30 m.

PRE-OPERATION PROCEDURES

CHECK POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 7–9 gpm/26–34 lpm at 1500–2000 psi/105–140 bar.
2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2250 psi/155 bar maximum.

INSTALL TOOL BIT

1. Rotate the latch on the breaker foot downward (pointing away from the tool).
2. Insert the tool bit into the foot and pull the latch up to lock the tool bit in place.

CONNECT HOSES

1. Wipe all hose couplers with a clean, lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.
3. Observe flow indicators stamped on hose couplers to ensure that fluid flow is in the proper direction. The female coupler on the tool hose is the inlet coupler.
4. Move the hydraulic circuit control valve to the ON position to operate the tool.

NOTE:

If uncoupled hoses are left in the sun, pressure increase within the hoses may make them difficult to connect. When possible, connect the free ends of the hoses together.

OPERATION PROCEDURES

1. Observe all safety precautions.
2. Install the appropriate tool bit for the job.
3. Place the bit firmly on the surface to be broken.
4. Squeeze the trigger to start the breaker. Adequate down pressure is very important. When the tool bit breaks through the obstruction or becomes bound, release the trigger and reposition the tool bit.

NOTE:

Partially depressing the trigger allows the tool to run at slow speed. Slow-speed operation permits easier starting of the tool bit into the work surface.

5. To start, break an opening (hole) in the center of the surface. After making a hole, break portions of the material into the original opening. For best productivity, the breaking should be done around the original hole.

   The size of the broken material will vary with the strength and thickness of the base material and the amount of any reinforcement wire or rebar.

   Harder material or more reinforcing wire or rebar will require taking smaller bites. To determine the most effective bite, start with 2 in. / 50 mm or smaller bites.

   Bites can then be gradually increased until the broken piece becomes too large, requiring increased time to break off the piece.

   Sticking of the tool bit occurs when too large a bite is being taken and the tool bit hammers into the material without the material fracturing. This causes the tool bit to become trapped in the surrounding material.

COLD WEATHER OPERATION

If the breaker is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluid, fluid temperature should be at or above 50 °F/10 °C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or breaker can result from use with fluid that is too viscous or thick.

TOOL PROTECTION & CARE

NOTICE

In addition to the Safety Precautions found in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Do not force a small breaker to do the job of a large breaker.
- Keep tool bit sharp for maximum breaker performance. Make sure that tool bits are not chipped or rounded on the striking end.
- Never operate a breaker without a tool bit or without holding it against the work surface. This puts excessive strain on the breaker foot.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Tool does not run.	Power unit not functioning.	Check power unit for power flow and pressure (7–9 gpm/26–34 lpm, 1500–2000 psi/105–140 bar.
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Mechanical failure of piston or automatic valve.	Disassemble breaker and inspect for damaged parts.
Tool does not hit effectively.	Power unit not functioning.	Check power unit for power flow and pressure (7–9 gpm/26–34 lpm, 1500–2000 psi/105–140 bar.
	Couplers or hoses blocked.	Remove restriction.
	Low accumulator charge (pressure hose will pulse more than normal).	Recharge accumulator. Replace diaphragm if charge loss continues.
	Fluid too hot (above 140 °F/60 °C).	Provide cooler to maintain proper fluid temperature (130 °F/55 °C).
Tool operates slow.	Low gpm supply from power unit.	Check power unit for proper flow (7–9 gpm/26–34 lpm).
	High back-pressure.	Check hydraulic system for excessive back-pressure (over 200 psi/14 bar).
	Couplers or hoses blocked.	Remove restriction.
	Orifice plug blocked.	Remove restriction.
	Fluid too hot (above 140 °F/60 °C) or too cold (below 60 °F/16 °C).	Check power unit for proper fluid temperature. Bypass cooler to warm the fluid or provide cooler to maintain proper temperature.
	Relief valve set too low.	Adjust relief valve to 2100–2250 psi/145–155 bar.
Tool gets hot.	Hot fluid going through tool.	Check power unit. Be sure flow rate is not too high causing part of the fluid to go through the relief valve. Provide cooler to maintain proper fluid temperature (140 °F/60 °C max). Check the relief valve setting. Eliminate flow control devices.
Fluid leakage on tool bit.	Lower piston seal failure.	Replace seal.
Fluid leakage around trigger.	Valve spool seal failure.	Replace seals.

CHARGING THE ACCUMULATOR

ACCUMULATOR TESTING PROCEDURE

To check or charge the accumulator the following equipment is required.

- 31254 Charge Kit, which includes the following:
  - Accumulator Tester (Part Number 02835).
  - Charging Assembly (P/N 15304) (15304 includes a liquid filled gauge with snub valve, hose and fittings).
- NITROGEN bottle with an 800 psi/55 bar minimum charge.(Not included in 31254 kit)

CAUTION

This assembly contains nitrogen under pressure

1. Remove the plug from the handle or handle pivot.
2. Holding the chuck end of Accumulator Tester (P/N 02835) turn the gauge fully counterclockwise to ensure that the stem inside the chuck is completely retracted.
3. Thread the tester onto the accumulator charging valve. Do not advance the gauge-end into the chuck-end. Turn as a unit. Seat the chuck on the accumulator charging valve and hand tighten only.
4. Advance the valve stem of the tester by turning the gauge-end clockwise until a pressure is read on the gauge (charge pressure should be 500-700 psi/34-48 bar).
5. If pressure is OK unscrew the gauge-end from the chuck to retract the stem, then unscrew the entire tester assembly from the accumulator charging valve. If pressure is low, charge the accumulator as described in the following paragraph.
6. Install the plug.

ACCUMULATOR CHARGING

1. Perform steps 1 through 4 of the accumulator testing procedure above.
2. Connect the chuck of the charging assembly to the charging valve on the accumulator tester or, if preferred, remove the tester from the charging valve and connect the charging assembly chuck directly to the charging valve.
3. Adjust the snub valve to a charging pressure of 600 psi/42 bar. Note: While watching the pressure gauge, open snub valve slowly until it reaches the proper charge pressure (600-700 psi).

NOTE:

It may be necessary to set the gauge at 650-700 psi/45-48 bar to overcome any pressure drop through the charging system.

4. When the accumulator is fully charged close the snub valve on the charging assembly hose and remove the charging assembly chuck from the accumulator tester or tool charging valve.
5. If the accumulator tester has been used, be sure to turn the gauge-end fully counterclockwise before removing the tester from the charging valve of the tool. Install the valve cap.

UNDERWATER MODEL PREVENTATIVE MAINTENANCE

After each use, the movable portions of the tool that were exposed to water should be flushed with a water displacing oil such as WD40™. Remove any remaining water and debris as follows:

1. Turn the tool upside down (without the tool bit) and spray oil through the drive hex and side holes in the breaker foot assembly to displace any remaining water in the lower piston cavity.
2. Spray oil into the On/Off valve trigger slot area.
3. Dip or spray the entire tool.
4. Cycle the tool hydraulically several times before storing away.

Charging the Accumulator (BR45 with Anti-Vibration Handles)

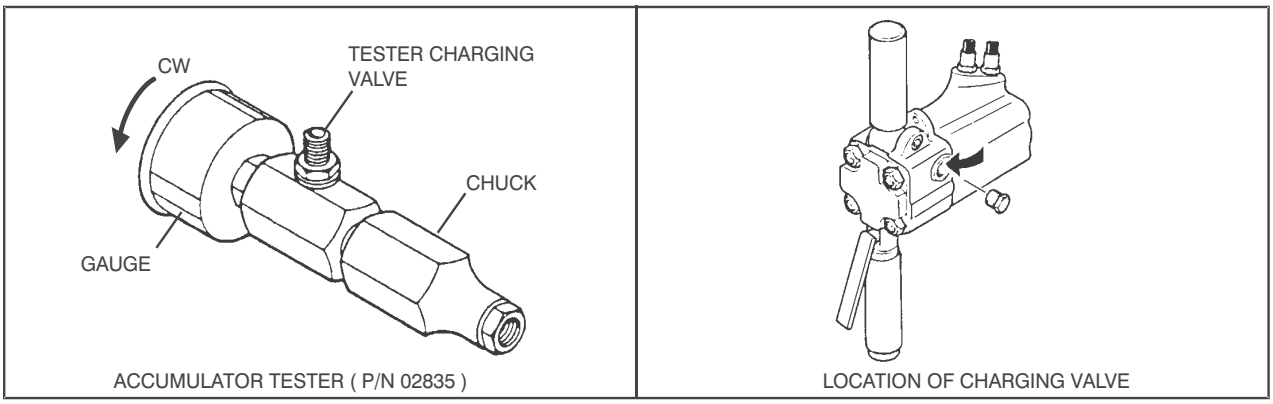
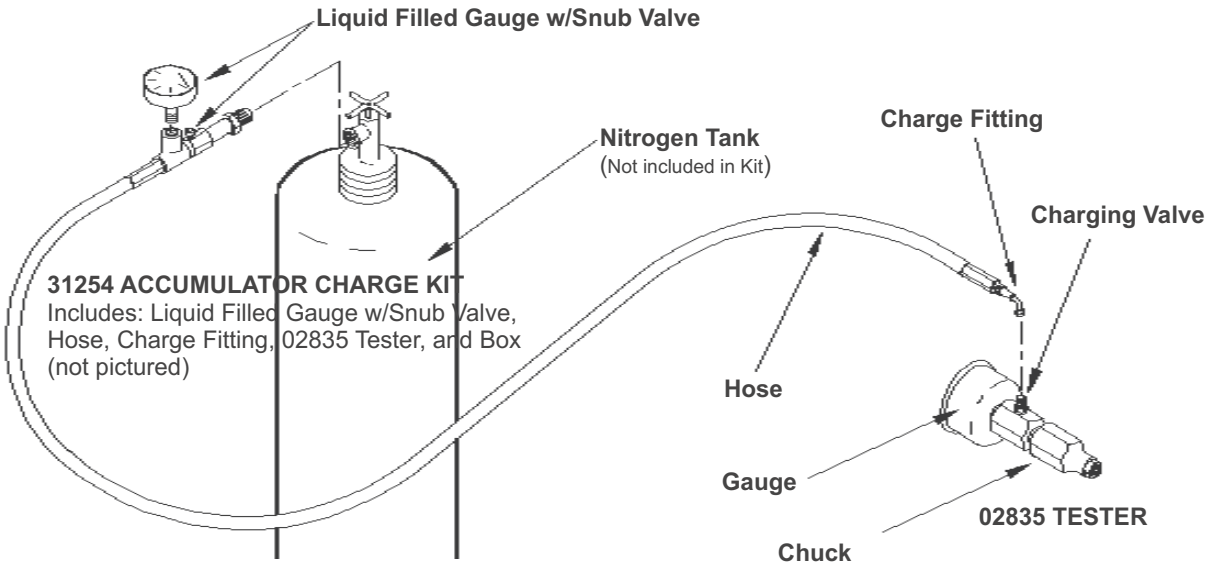


Figure 2



Charging the Accumulator (BR45 with T-Handles)

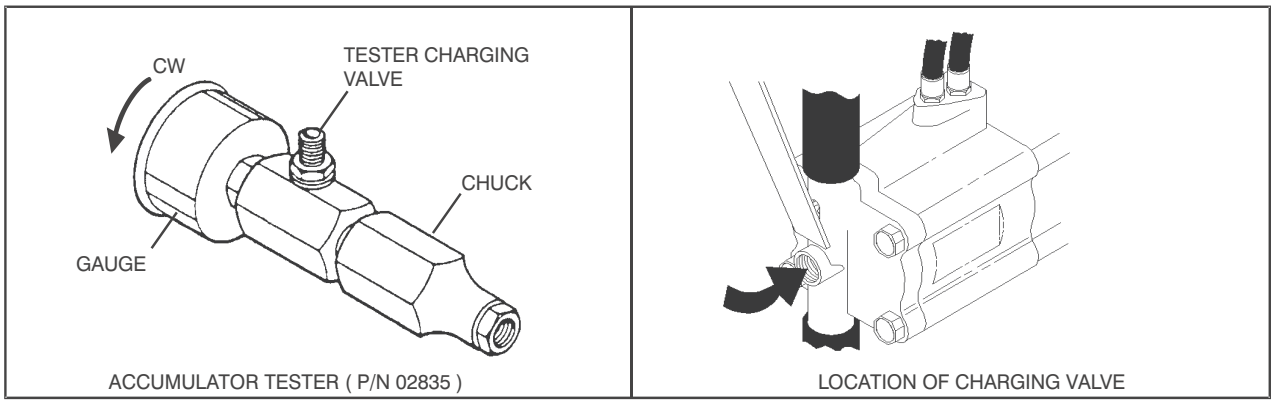


Figure 2. Charging the Accumulator

SPECIFICATIONS

Pressure Range	1500–2000 psi/105–140 bar
Flow Range	7–9 gpm / 26–34 lpm
Optimum Flow	8 gpm / 30 lpm
Maximum Back Pressure	250 Psi/17 bar
Couplers	HTMA Flush Face
Connect Size & Type	3/8 in. Male Pipe Hose Ends
Weight	T-Handle 48 lbs / 21 kg
	Anti-Vibration Handle 51 lbs / 23 kg
Overall Length	T-Handle 25.5 in. / 65 cm
	Anti-Vibration Handle 28.25 in. / 72 cm
Overall Width at Handles	T-Handle 14 in. / 35 cm
	Anti-Vibration Handle 17.5 in. / 44.5 cm
Max. Fluid Temperature	140 °F / 60 °C
System Type	Open or Closed Center
Port Size	SAE 8 O-ring
HTMA Class II	7–9 gpm @ 1500–2000 psi
Guaranteed Sound Power Level (2000/14/EC)	107 dBA
Sound Pressure Level, 1 meter (ISO 11203)	98 dBA
Vibration Level (ISO 8662-5)	With Uncertainty, Z Axis 4.2
	With Uncertainty, 3 Axis 6.6

1 IN. HEX × 4-1/4 IN. SHANK

Moil Point – 14 in. Long UC 07702
Narrow Chisel Point – 14 in. Long UC 07703
3-inch Chisel – 14 in. Long UC 07704
Clay Spade – 5-1/2 in. Blade 07705
Asphalt Wedge – 3 in. Wide 07706

1-1/8 IN. HEX × 6 IN. SHANK

Moil Point – 14 in. Long UC 02333
Chisel Point – 14 in. Long UC 03990
3-inch Chisel – 14 in. Long UC 02334
Clay Spade – 5-1/2 in. Blade 02331
Asphalt Wedge – 12 in. 08106
Asphalt Cutter – 5 in. Wide 02332
Ground Rod Driver – 1 in. Rod 04176

1-1/4 IN. HEX × 6 IN. SHANK

Moil Point – 14 in. Long UC 02336
3-inch Chisel – 14 in. Long UC 02337
Clay Spade – 5-1/2 in. Blade 09262
Asphalt Cutter – 5 in. Wide 02335
Ground Rod Driver – 1 in. Rod 04367
Heavy Duty Chisel – 1 in.. 02338
Heavy Duty Moil Point – 18 in. 04404
Clay Spade – 8 in. 04405
Detachable Shank (Requires 17783) 17782
Tamping Pad – 6 in. (Requires 17782) 17783

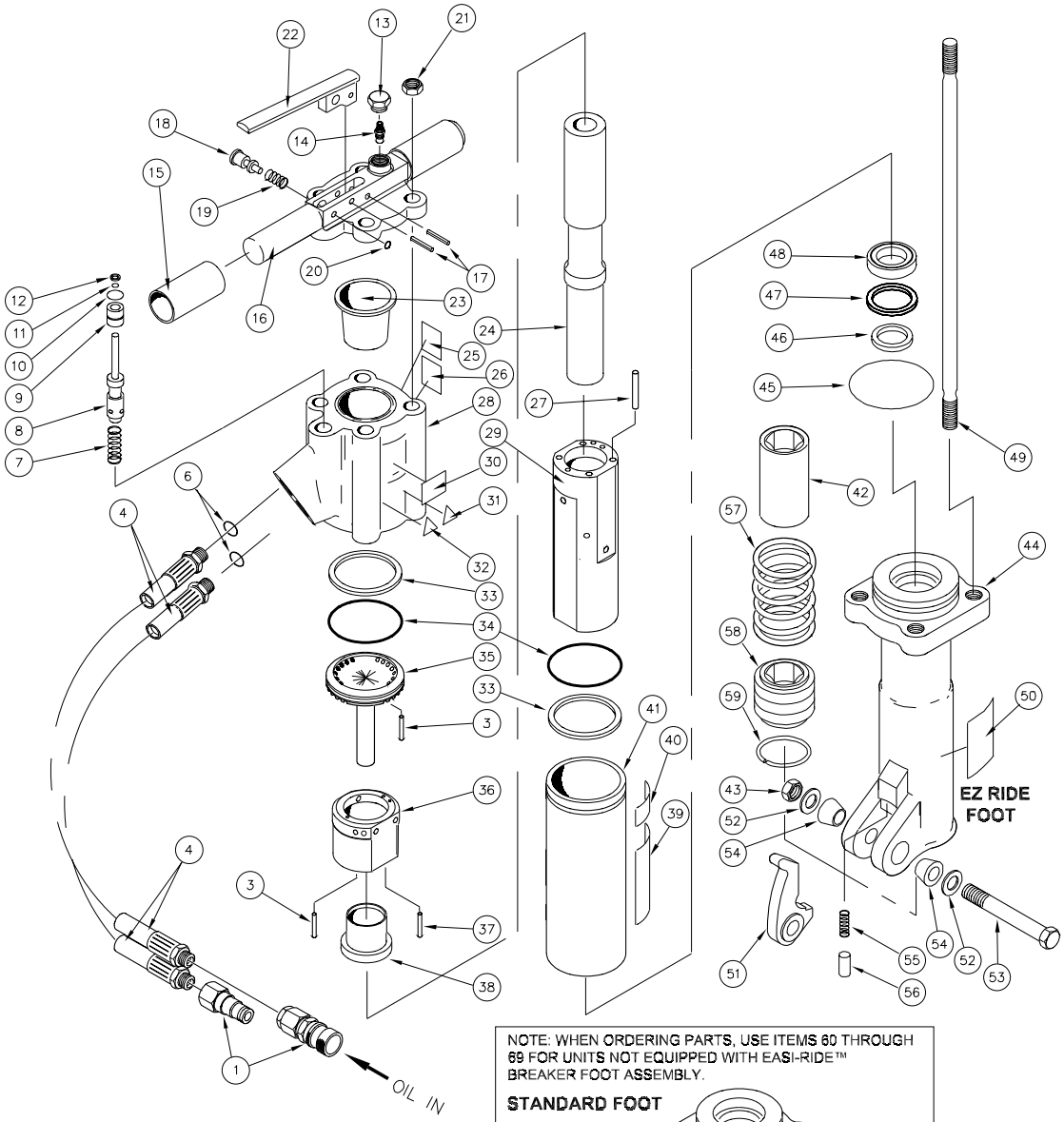
TEST EQUIPMENT

Accumulator Tester 02835
Flow and Pressure Tester 04182
Accumulator Charge Assembly (Includes Liquid Filled Gauge w/ Valve, Hose, & Charge Fitting) 15304
Accumulator Charge Kit (Includes 02835 Tester, 15304 Charge Assy. and 372047 Charge Kit box) 31254

SERVICE TOOLS

Flow Sleeve Removal Tube 04910
Seal Kit 04596
Split Ring (Auto Valve Removal) 04908
Accumulator Cylinder Puller 05640
Accumulator Disassembly Tool 05508
Spacer (Flow Sleeve Installation) 04909

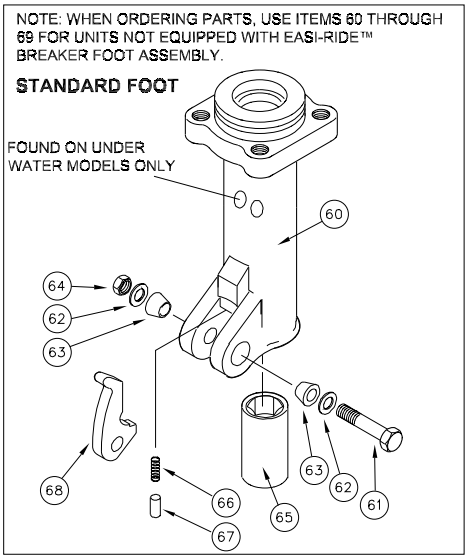
BR45 T-HANDLE PARTS ILLUSTRATION



NOTE: WHEN ORDERING PARTS, USE ITEMS 60 THROUGH 69 FOR UNITS NOT EQUIPPED WITH EASI-RIDE™ BREAKER FOOT ASSEMBLY.

STANDARD FOOT

FOUND ON UNDER WATER MODELS ONLY

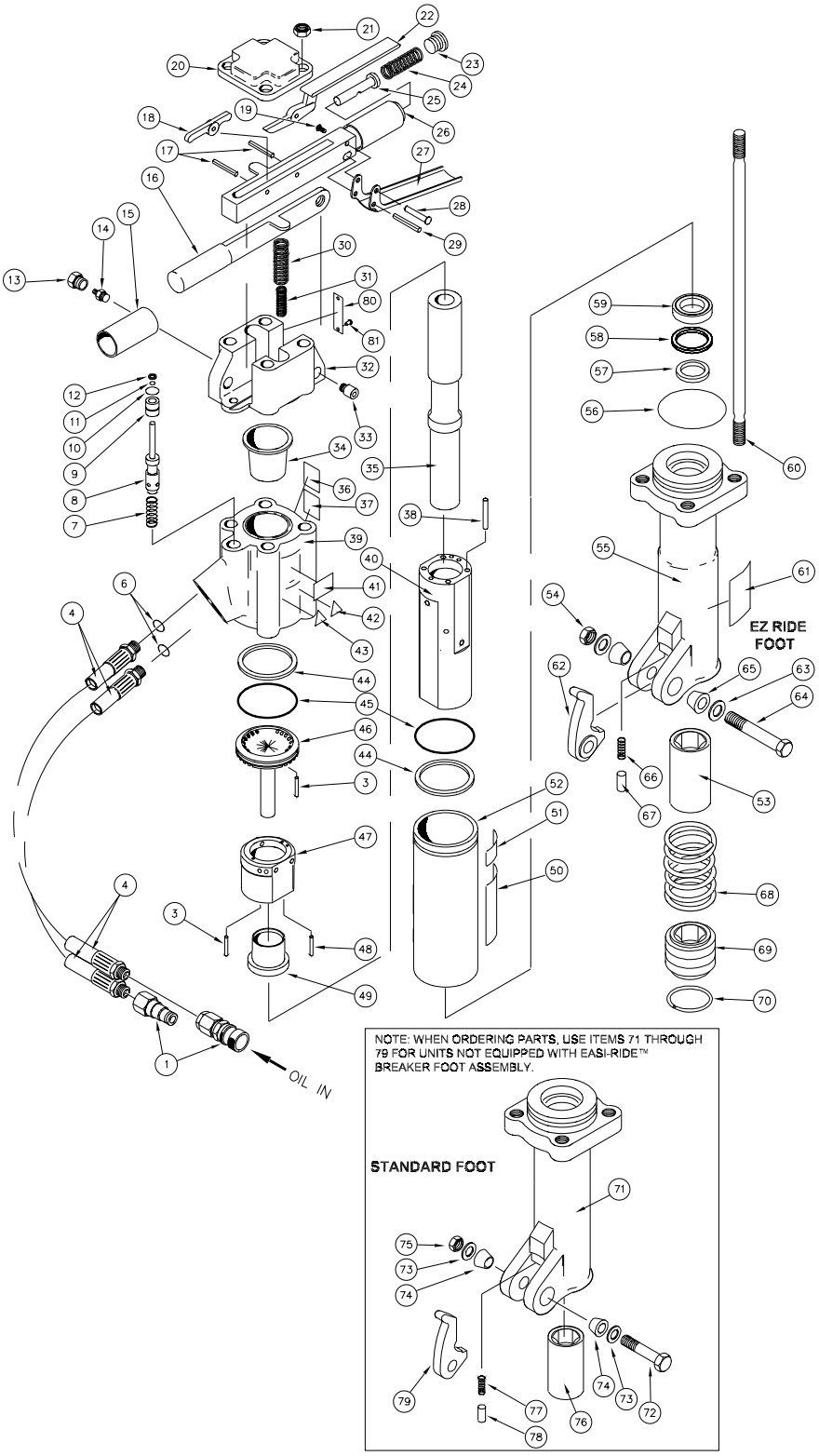


BR45 T-HANDLE PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	03971	1	COUPLER SET
2	—	—	NO ITEM
3	02900	2	ROLL PIN
4	09546	2	HOSE ASSY – 18 INCH
	01652	2	ALTERNATE HOSE ASSY – 12 INCH
5	—-	—	NO ITEM
6	01605	2	O-RING, INCL WITH ITEM 4
7	04058	1	SPRING
8	04077	1	VALVE SPOOL
9	04057	1	BUSHING
	07699	1	BUSHING ASSY (INCL ITEMS 9 THRU 12)
10	00293	1	O-RING
11	01362	1	O-RING
12	04056	1	ROD WIPER
13	07493	1	PLUG
14	20499	1	CHARGE VALVE
15	02494	2	HANDLE GRIP
16	07483	1	HANDLE
	11358	1	HANDLE, TRIGGER LOCK MODELS
17	07492	2	SPIROL PIN
18	07594	1	TRIGGER LOCK
19	07593	1	SPRING
20	00224	1	RETAINER RING
21	04374	4	LOCKNUT, 5/8-18
22	04371	1	TRIGGER
23	07479	1	ACCUMULATOR DIAPHRAGM
24	07481	1	PISTON
25	58601	1	SOUND POWER LEVEL STICKER
26	28409	1	COMPOSITE SAFETY STICKER
27	04605	4	PUSH PIN
28	11588	1	ACCUMULATOR VALVE BLOCK
29	07485	1	FLOW SLEEVE
30	28322	1	CE STICKER
31	11207	1	CIRCUIT TYPE D STICKER
32	11206	1	CIRCUIT TYPE C STICKER
33	04381	2	BACK-UP RING
34	04379	2	O-RING
35	04378	1	PORTING BLOCK
36	07480	1	AUTOMATIC VALVE BODY
37	04571	2	PUSH PIN
38	04382	1	AUTOMATIC VALVE
39	07487	1	MODEL NUMBER STICKER
40	05152	1	STANLEY STICKER
41	04383	1	FLOW SLEEVE TUBE
42	07517	1	HEX BUSHING – 1-1/8 (BR45120E/BR4512201E/BR45125S) *
	07518	1	HEX BUSHING – 1-1/4 (BR45130E/BR45135S) *
43	04984	1	STOP NUT *
44	12298	1	BREAKER FOOT W/ INSERT ASSY (BR45120E/BR4512201E/BR45125S/BR45130E/ BR135S)
45	02022	1	O-RING *
46	04387	1	ROD WIPER
47	04780	1	BACK-UP WASHER
48	04386	4	CUP SEAL
49	04373	1	SIDE ROD
50	11208	1	HEX SHANK LENGTH STICKER
51	01837	1	LATCH *
52	04985	2	SPRING WASHER *
53	04983	1	FOOT LATCH BOLT *
54	01269	2	RUBBER SLEEVE *
55	01744	1	SPRING *
56	08411	1	DETENT *
57	08158	1	SPRING *
58	08115	1	COLLAR SUPPORT ASSY – 1-1/8 (BR45120E/BR4512201E/BR45125S) *
	08116	1	COLLAR SUPPORT ASSY – 1-1/4 (BR45130E/BR45135S) *
59	07522	1	RETAINER RING *
60	62356 08857 07695 07445	1	BREAKER FOOT W/ INSERT ASSY (BR45120) * BREAKER FOOT (BR45350) * BREAKER FOOT (BR4514801) * BREAKER FOOT (BR45160/BR4516201/ BR4516801) *
61	04717 04983	1	LATCH BOLT (BR4514801/BR45160/BR4516201/BR4516801/ BR45350) * LATCH BOLT (BR45120) *
62	04716 04985	2	SPRING WASHER (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) * SPRING WASHER (BR45120) *
63	04715 01269	2	CONE WASHER (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) * CONE WASHER (BR45120) *
64	04374 04984	1	LOCK NUT (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) * LOCK NUT (BR45120) *
65	04081 01742 07477	1	HEX BUSHING – 1-1/8 (BR45120 ONLY) HEX BUSHING – 7/8 (BR4514801 ONLY) HEX BUSHING – 1 IN. (BR45160/BR4516201/ BR4516801/BR45350)
66	04392	1	SPRING (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) * SPRING (BR45120) *
67	04393 08411	1	DETENT (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) * DETENT (BR45120) *
68	04394 01837	1	LATCH (BR4514801/BR45160/ BR4516201/BR4516801/BR45350) LATCH (BR45120) *

* PART OF BREAKER FOOT ASSEMBLY
SEAL KIT PART NUMBER 04595

BR45 ANTI-VIBRATION HANDLE PARTS ILLUSTRATION


EZ RIDE FOOT
OIL IN
NOTE: WHEN ORDERING PARTS, USE ITEMS 71 THROUGH 79 FOR UNITS NOT EQUIPPED WITH EASI-RIDE™ BREAKER FOOT ASSEMBLY.
STANDARD FOOT

BR45 ANTI-VIBRATION HANDLE PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	03971	1	COUPLER SET
2	—	—	NO ITEM
3	02900	2	ROLL PIN
4	01652	2	HOSE ASSEMBLY, 12 INCH
	09546	2	HOSE ASSEMBLY, 18 INCH
5	—	—	NO ITEM
6	01605	2	O-RING, INCLUDED WITH ITEM 4
7	04058	1	SPRING
8	20515	1	VALVE SPOOL
9	04057	1	BUSHING
10	00293	1	O-RING, 11/16 × 7/8 × 3/32
11	01362	1	O-RING, 5/16 × 7/16 × 1/16
12	04056	1	ROD WIPER
13	20510	1	PLUG
14	20499	1	CHARGE VALVE
	09349	1	VALVE CAP (NOT SHOWN)
15	02494	2	HANDLE GRIP
16	28369	1	HANDLE, GUARDED
17	20500	2	SPIROL PIN 1/4 × 1
18	20511	1	LEVER
19	32297	1	SLOTTED MACHINE SCREW (TRIGGER LOCK MODEL)
20	28494	1	TOP PLATE
21	04374	4	LOCK NUT 5/8-18
22	20502	1	TRIGGER
23	16607	1	SAE O-RING PLUG #10 (TRIGGER LOCK MODELS)
24	24964	1	SPRING (TRIGGER LOCK MODELS)
25	26599	1	PIN (TRIGGER LOCK MODELS)
26	31565	1	TRIGGER HANDLE (TRIGGER LOCK MODELS)
	29045	1	TRIGGER HANDLE (NON-TRIGGER LOCK MODELS)
27	24948	1	TRIGGER LOCK (TRIGGER LOCK MODELS)
28	31917	1	TRIGGER PIN (TRIGGER LOCK MODELS)
29	21089	1	ROLL PIN, 1/4 × 1-3/8 (TRIGGER LOCK MODELS)
30	20540	2	SPRING
31	20541	2	SPRING
	20498	2	SPRING (TRIGGER LOCK MODELS)
32	20505	1	HANDLE PIVOT
33	20508	2	PIVOT SCREW
34	07479	1	ACCUMULATOR DIAPHRAGM
35	07481	1	PISTON
36	58601	1	SOUND POWER LEVEL STICKER (CE ONLY)
37	28409	1	COMPOSITE SAFETY STICKER (CE ONLY)
38	04605	4	PUSH PIN
39	11588	1	ACCUMULATOR VALVE BLOCK
40	07485	1	FLOW SLEEVE
41	28322	1	CE STICKER

ITEM NO.	PART NO.	QTY	DESCRIPTION
42	11207	1	CIRCUIT “D” STICKER
43	—	—	NO ITEM
44	04381	2	BACK-UP RING
45	04379	2	O-RING, 2-9/16 × 2-3/4 × 3/32
46	04378	1	PORTING BLOCK
47	07480	1	AUTOMATIC VALVE BODY
48	04571	2	PUSH PIN
49	04382	1	AUTOMATIC VALVE
50	05152	1	STANLEY STICKER
51	28379	1	BR45 MODEL NUMBER STICKER
52	04383	1	FLOW SLEEVE TUBE
53	07518 07517	1	HEX BUSHING – 1-1/4 (BR45135S) * HEX BUSHING – 1-1/8 (BR45125S) *
54	04984	1	STOP NUT *
55	12298	1	BREAKER FOOT WITH INSERT ASSY (BR45125S/BR45135S)
56	02022	1	O-RING *
57	04387	1	ROD WIPER
58	04780	1	BACK-UP WASHER
59	04386	1	CUP SEAL
60	20517	4	SIDE ROD
61	11208	1	HEX SHANK LENGTH STICKER
62	01837	1	LATCH *
63	04985	2	SPRING WASHER *
64	04983	1	FOOT LATCH BOLT *
65	01269	2	RUBBER SLEEVE *
66	01744	1	SPRING *
67	08411	1	DETENT *
68	08158	1	SPRING *
69	08115 08116	1	COLLAR SUPPORT ASSY – 1-1/8 (BR45125S) * COLLAR SUPPORT ASSY – 1-1/4 (BR45135S) *
70	07522	1	RETAINER RING *
71	07695 07445	1	BREAKER FOOT (BR4514801) * BREAKER FOOT (BR4516801) *
72	04717	1	LATCH BOLT
73	04716	2	SPRING WASHER *
74	04715	2	CONE WASHER *
75	04374	1	LOCK NUT
76	01742 07477	1	HEX BUSHING – 7/8 IN. (BR4514801) * HEX BUSHING – 1 IN. (BR4516801) *
77	04392	1	SPRING *
78	04393	1	DETENT *
79	04394	1	LATCH *
80	71072	1	CE TOOL PLATE
81	02004	2	DRIVE PIN

* PART OF BREAKER FOOT ASSEMBLY
SEAL KIT PART NUMBER 04595

PARTS LIST

BREAKER FOOT ASSEMBLY (T-HANDLE)			
PART NO.	**SIZE**	**MODEL**	**INCLUDES ITEMS**
62334	1-1/8 IN. STANDARD	BR45120	45–48 AND 60–68
08154	1-1/8 IN. EASY-RIDE	BR45120E	45–48 AND 51–68
08154	1-1/8 IN. EASY-RIDE UK	BR4512201E	42–48 AND 51–59
08081	1-1/4 IN. EASY-RIDE	BR45130E	42–48 AND 51–59
07510	1 IN. STANDARD 1 IN. STANDARD W/ TRIGGER LOCK	BR45160 BR4516201	45–48 AND 60–68
08856	1 IN. UW	BR45350	45–48 AND 60–68

BREAKER FOOT ASSEMBLY (ANTI-VIBRATION HANDLE)			
PART NO.	**SIZE**	**MODEL**	**INCLUDES ITEMS**
08154	1-1/8 IN. EASY-RIDE	BR45125S	53–59 AND 62–70
08081	1-1/4 IN. EASY-RIDE	BR45135S	53–59 AND 62–70
07694	7/8 IN. STANDARD	BR4514801	56–59 AND 71–79

Stanley Hydraulic Tools
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www.stanleyhydraulic.com

IMPORTANT

To fill out a Product Warranty Recording form, and for information on your warranty, visit Stanleyhydraulic.com and select the Warranty tab.
(**NOTE:** The warranty recording form must be submitted to validate the warranty).